

REMARKS/ARGUMENTS

Claims 1 and 3-11 are pending. Claim 2 has been canceled without prejudice. Claims 1, 3, and 5 have been amended. New claims 6-11 have been added. No new matter has been introduced. Applicants believe the claims comply with 35 U.S.C. § 112.

Priority

A certified copy of the priority document, JP2002-319434, was filed with the patent application on September 18, 2003. Enclosed is a copy of the transmittal with a certificate of mailing executed on September 18, 2003, a copy of the front page of the priority document, and a copy of the date-stamped return postcard indicating receipt of the certified copy of the priority document by the U.S. Patent and Trademark Office. Accordingly, Applicants respectfully submit the priority claim has been perfected.

Claim Rejections

Claims 1 and 3-5 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ohashi et al. (US 6,507,464) in view of Chen et al. (US 6,776,891). The Examiner acknowledges that Ohashi et al. does not disclose the saturation magnetization or composition features of the claims, and cites Chen et al. for allegedly disclosing those features.

Applicants respectfully submit that independent claims 1 and 5 as amended are patentable over Ohashi et al. and Chen et al. because, for instance, they do not teach or suggest a magnetic layer that contains Co, Ni, and Fe, with $20 \leq \text{Co} \leq 40 \text{ wt\%}$, $0 < \text{Ni} \leq 2 \text{ wt\%}$, and $60 \leq \text{Fe} \leq 80 \text{ wt\%}$, and has a saturation magnetic flux density of 23,000 gauss or more, and that the thickness of said magnetic layer is $3\mu\text{m}$ or more.

Chen et al. discloses a plated film thickness "within the range of $0.7 \mu\text{m}$ and $1.3 \mu\text{m}$ " (col. 5, lines 52-53; Table 2). There is no teaching in Chen et al. that the thickness of the CoNiFe based magnetic layer is important to a higher saturation magnetic flux density (B_s) of the head. Ohashi et al. merely discloses a CoFeNi magnetic film having a thickness between 0.3 and $2.0 \mu\text{m}$ (col. 3, lines 13-15). Accordingly, it would not have been obvious to

provide the magnetic layer having the recited characteristics including the thickness of 3 μ m or more.

For at least the foregoing reasons, independent claims 1 and 5, and claims 2, 3, 6, and 7 depending therefrom are patentable over Ohashi et al. and Chen et al.

Applicants respectfully contend that new independent claim 8 is patentable over the cited references because, for instance, they do not teach or suggest a magnetic layer, which contains Co, Ni, and Fe, with $20 \leq \text{Co} \leq 40 \text{ wt\%}$, $0 < \text{Ni} \leq 2 \text{ wt\%}$, and $60 \leq \text{Fe} \leq 80 \text{ wt\%}$, and has a saturation magnetic flux density of 23,000 gauss or more, is formed by electroplating in a plating bath having pH value of 2 or less. Such a magnetic layer can be as thick as 3 μ m or more (see paragraph [0034]), so that the problem as discussed in paragraph [0005] of the present application can be solved (namely, forming a stable magnetic core with a thick film, using a material that has a high saturation magnetic flux density (B_s) to generate a strong magnetic field that permits writing on a recording medium having a high coercive force).

In contrast, Chen et al. discloses that the layer is formed by plating solutions with pH of 2-4 (Table 2), while Ohashi et al. discloses that the pH is 2.5-3.5 (Table 2). In forming the magnetic layer, there is no teaching or suggestion in the cited art that it would be possible to have a thick layer with a higher B_s as achieved by the claimed invention, by electroplating with a plating bath at a pH value of 2-4 or 2.5-3.5. Thus, it would not have been obvious to limit the pH value of a plating bath used in the process of electroplating to form the magnetic layer as recited in claim 8 by the combination of Ohashi et al. and Chen et al.

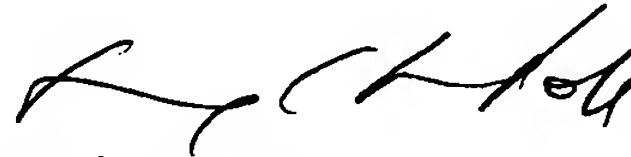
For at least the foregoing reasons, new claim 8 and claims 9-11 depending therefrom are patentable.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,



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